REMARKS

The applicant respectfully requests reconsideration in view of the amendment and the following remarks. Support for amended claims 1 and 23 can be found in claim 23. No new matter has been added.

Claims 1 and 3-24 and 28-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Bjerrum et al. (WO 01/18894 A2, ("Bjerrum")). Claims 2 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjerrum in view of Kiefer et al. (US 2005/0084727 A1 (Kiefer)). The applicant respectfully traverses these rejections.

102 (b) Rejection

Claims 1 and 3-24 and 28-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Bjerrum. Bjerrum discloses to use alloyed catalyst based on Pt and Pt/Ru, Pt/Cr, Pt/W and Pt/Ti (see page 18, lines 20-25) but does not disclose a catalyst of platinum group, and/or at least one precious metal Au and/or Ag with Ni alloy as is claimed by the applicant's claimed invention. Therefore the claimed invention is novel over Bjerrum.

103 (a) Rejection

Claims 2 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjerrum in view of Kiefer. The instant invention provide a catalyst system (Pt/Ni) having improved performance. The instant inventors found that by using Pt/Ni catalysts higher power densities can be drawn from such MEU (see page 35, lines 4-5, of the instant specification and examples at page 36, lines 1-2 and the table on page 37).

As mentioned already above, Bjerrum teaches to use non-alloyed and alloyed catalyst based on Pt and Pt/Ru, Pt/Cr, Pt/W and Pt/Ti but does not teach a catalyst of Pt/Ni alloy.

Kiefer relates to proton conductive membranes based on a polymer film (polyazole) which is doped with vinyl-phosphonic acid monomers (liquid or solution). The PEM taught by

Kiefer is based on polyazole but does not contain a mineral acid (such as phosphoric acid) (see also paragraph no. 0020 of Kiefer).

It is recognized that paragraph no. [0165] of Kiefer states,

> The catalytically active layer contains a catalytically active substance. These include, inter alia, noble metals such as **platinum, palladium, rhodium, iridium and/or ruthenium**. **These substances can also be used in the form of alloys with each other. Furthermore, these substances can also be used in alloys with base metals such as Cr, Zr, Ni, Co and/or Ti.** In addition, the oxides of the abovementioned noble metals and/or base metals can also be used. (emphasis added)

However, there is no teaching provided by Kiefer that alloyed catalysts, especially based on an alloy with nickel, improve the performance of the MEA. Again, there is no teaching provided by Kiefer which measures have to be taken to improve the performance of a catalyst for polyazole/phosphoric acid PEM.

A statement that modifications of the prior art to meet the claimed invention would have been "obvious to one of ordinary skill in the art at the time the invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See MPEP § 2143.01 IV. "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Furthermore, the Examiner cannot selectively pick and choose from the disclosed parameters without proper motivation as to a particular selection. The mere fact that a reference may be modified to reflect features of the claimed invention does not make the modification, and hence the claimed invention, obvious unless the prior art suggested the desirability of such modification. *In re Mills*, 916 F.2d 680, 682, 16 USPQ2d 1430 (Fed. Cir. 1990); *In re Fritch*, 23

USPQ2d 1780 (Fed. Cir. 1992). Thus, it is impermissible to simply engage in a hindsight reconstruction of the claimed invention where the reference itself provides no teaching as to why the applicant's combination would have been obvious. *In re Gorman*, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991).

The is no teaching provided by Bjerrum and Kiefer that Pt/Ni alloys lead to improved MEU from which higher power densities can be drawn. Hence there is no teaching provided to solve the problem underlying the instant invention, namely to improve performance of MEU is order to obtain higher power densities. For the above reasons, this rejection should be withdrawn.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 15588-00042-US from which the undersigned is authorized to draw.

Dated: February 25, 2011

Respectfully submitted,

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